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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
09/293,163	04/16/99	KERR	E 5593

IM62/0913

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EXAMINER

REDDICK, M

ART UNIT	PAPER NUMBER
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1713

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DATE MAILED: 09/13/00

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No.

09/293,163

Applicant(s)

KERR ET AL.

Examiner

Judy M. Reddick

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).

Status

- 1) ☒ Responsive to communication(s) filed on 05/24/99;04/16/00.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-7 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-7 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claims _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are objected to by the Examiner.
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).
- a) ☐ All b) ☐ Some * c) ☐ None of the CERTIFIED copies of the priority documents have been:
1. ☐ received.
2. ☐ received in Application No. (Series Code / Serial Number) _____.
3. ☐ received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. & 119(e).

Attachment(s)

- 15) ☒ Notice of References Cited (PTO-892)
- 16) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 17) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 4.
- 18) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 19) ☐ Notice of Informal Patent Application (PTO-152)
- 20) ☐ Other: _____.

DETAILED ACTION

Information Disclosure Statement

1. ***The copies of the references cited on the Information Disclosure Statement have been received and considered.***

Claim Rejections - 35 USC § 112

2. ***The following is a quotation of the second paragraph of 35 U.S.C. 112:***

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. ***Claims 1-7 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.***

A) The recited "low molecular weight sulfonate-containing polymer" per claim 1 constitutes indefinite subject matter as per the metes and bounds of the term "low", in this context, engender an indeterminacy in scope.

B) The recited "substituted acrylamide" and "substituted acrylic acid" per claim 3 constitutes indefinite subject matter as per the metes and bounds of "substituted" engender an indeterminacy in scope, i.e., the moiety indicative of the substituents are not readily ascertainable.

C) The recited "a molecular weight ranging from about 2,000 to about 20,000" per claim 5 constitutes indefinite subject matter as per it not being readily ascertainable as to the type of molecular weight intended, i.e., "weight average" or "number average", the two being substantially different.

Claim Rejections - 35 USC § 102

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4. *The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:*

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. *The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:*

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. *Claims 1-7 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Halverson(U.S.4,342,653) ^{or} and Richardson et al(U.S. 4,704,209).*

Each of Halverson and Richardsdon et al disclose and exemplify processes for modifying the rheology of a slurry of a mineral-containing solid(comfortably overlapping in scope with the claimed mineral-containing solid) and water via, basically, adding to the slurry a sulfonate-containing polymer(comfortably overlapping in scope with the claimed sulfonate-containing polymer). See, e.g. , the Abstract, cols. 2-12(runs inclusive) and the claims of Halverson and the Abstract and cols. 1-4, runs and claims inclusive, of Richardson et al. Each of Halverson et al and Richardson et al therefore anticipate the instantly claimed invention.

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7. *Claims 1 and 5 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Horsley et al(U.S.4,688,588).*

Horsley et al disclose methods for facilitating the flow of a material in the form of fines which include silica-based fines and coal fines, wherein said method basically involves forming a slurry of silica-based or coal fines in water and adding to said slurry 0.01 to 0.05 wt.% of a dispersant which includes a naphthalene sulfonate aminoplast polymer. See, e.g., the Abstract and cols. 1-8 of Horsley et al. Horsley et al therefore anticipate the instantly claimed invention.

Claim Rejections - 35 USC § 103

8. *The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:*

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. *Claims 2-4, 6 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Horsley et al(U.S.4,688,588) in combination with Brown et al(U.S. 5,317,053).*

Horsley et al as already discussed in paragraph 6 supra and as applied to claims 1 and 5. Further, the disclosure of Horsley et al differs basically from the claimed invention as per the non-express guidelines to use the specifically recited sulfonate-containing polymer, as claimed, as the dispersant. However, Brown et al disclose the use of sulfonate-containing polymers, as claimed, in systems similar to that of Horsley et al. Therefore, it would have been obvious to the skilled artisan to use the conventionally, well known dispersants in the system of Horsley et al

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and with a reasonable expectation of success. Criticality for such, clearly commensurate in scope with the claims, not have been demonstrated on this record. See, e.g., the Abstract and cols. 2-4 of Brown et al.

Prior Art of Record

10. Note the attached FORM PTO-892 for additional prior art cited as of interest and/or of being illustrative of the general state of the art.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Judy M. Reddick whose telephone number is (703)308-4346. The examiner can normally be reached on Monday-Friday, 6:30 a.m.-3:00 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Wu can be reached on (703)308-2450. The fax phone numbers for the organization where this application or proceeding is assigned are (703)305-5885 for regular communications and (703)305-5885 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)305-8183.

J. M. Reddick
**Judy M. Reddick
Primary Examiner
Art Unit 1713**

JMR
September 8, 2000